

19980711.ba v02_n122.bam.980711

>From ???@??? Sat Jul 11 14:03:17 1998
Message-Id: <199807111542.KAA17807@sco.theporch.com>
Date: Sat, 11 Jul 1998 10:40:45 CDT
Subject: BOATANCHORS digest 2122

BOATANCHORS Digest 2122

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by Ralph Parker <rparker@istar.ca>
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by Henry van Cleef <vancleef@netcom.com>
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by Jderm740@aol.com
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by "Walt Novinger" <wnovinger@shaw.wave.ca>
- 12) RE: SR150
by K3DPJ <morry@ix.netcom.com>
- 13) peotone
by Kevin Thomas <kg9il@mc.net>
- 14) Waterton, MT, Hamfest
by mrairie@compusmart.ab.ca (Marty Raine)
- 15) Re: BC-779 (SP-200) Knobs
by "wayne.harrah" <wayne.harrah@mci2000.com>
- 16) WTDW big HP scopes
by Bill Hawkins <bill@iaxs.net>
- 17) HN connectors needed
by Kevin Gallagher <wire2liv@gomontana.com>
- 18) A direct (current) approach to audio
by "David Newkirk" <dpnewkirk@home.com>
- 19) KWM-2A restoration (II)

by "JOSE V. GAVILA (EB5AGV/EC5AAU)" <eb5agv@ctv.es>
20) TED/RED xtals
by Edward Zeranski <ejz@nosc.mil>
21) Need 1100 or 2150 volt plate xmfr
by "Lane C. Zeitler" <km3g@cts.com>

Date: Fri, 10 Jul 1998 15:54:30 -0400
From: jkh@lexis-nexis.com (John Heck)
Message-Id: <199807101954.PAA29191@psc7128.lexis-nexis.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Tek Plugin Question

Folks,
I just picked up a manual for my CA plugin. In reading through it I see that Tek wrote "It can be used...in conjunction with other oscilloscopes and devices through use of the Tektronix Types 127, 132, or 133 plug-in power supplies." I would like to know if I can take that to mean that if I can provide suitable power for the CA, that I can use it with any other o'scope I happen to have, just by rigging up a cable between the plugins output and the other scopes input? Are the Tek power supplies reasonably plentiful? or would it be feasible to homebrew a power supply? Has anybody used a plugin in this manner? The Tek manual does not elaborate on how to use the CA in any manner but by plugging it in a Tek scope. Giving it some thought,
I suppose that the CA is just a 2 channel linear amp with flat response up to about 12-14 Mc. Might even make a nice little stereo preamp, do you suppose? How would stereo sound chopped, or alternated, or maybe added algebraically? (just kidding).
Regards,
John Heck, KC8ETS
1009 Donson Drive
Dayton, Ohio 45429
(937)865-7036(work)
jkh@lexis-nexis.com

From: Jderm740@aol.com
Message-ID: <60aa6586.35a67189@aol.com>
Date: Fri, 10 Jul 1998 15:54:48 EDT
To: Old Tube Radios <boatanchors@theporch.com>
Cc: breynolds@sigg.com
Mime-Version: 1.0
Subject: Re: BOATANCHORS digest 2120
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

Bob

I just checked two Reliant owners manuals and a Mercury and all use 20amp fuses for both the lighter and the horns. (one fuse for both circuits together).

Make sure you get a good adapter, not something cheap from RS. And don't blow the horn while running.

I was blowing up a tire with one of those bargain compressors, and while the comp worked great the plug gave up the ghost from the heat.

Jack Jderm740@aol.com

From: MNHopkins@aol.com
Message-ID: <458c8184.35a67278@aol.com>
Date: Fri, 10 Jul 1998 15:58:47 EDT
To: Old Tube Radios <boatanchors@theporch.com>
Mime-Version: 1.0
Subject: Six Meter TX choices
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

No discussion of 6M v.tube TXs is clutter to this seminar-like list, so I take KC6UPT's request as an opportunity.

Ian wants a 6M TX, maybe with VFO. He has receive capacity and is interested in 6M CW (so I'll hear him at 50.090 eventually). What to buy?

I converted several old AM rigs, transceivers and TXs, to CW by adding regulated voltage to the oscillator and grid block keying. I have an ICM STP-50 in which all this was done outboard and the '58 model TX is still stock. That is a fine option if you have such a thing around, but what to buy if you don't?

I would look for, in order: Heath Seneca, Heath HX-30, Ameco TX-62 and finally, very finally, a WRL Globe HiBander VHF-62.

All those rigs except the HX-30 do 2M too. It is a legacy of GE Ham News' Bonus 100 TX of 1955 which arrived in '57 as the Johnson 6N2 attachment. Six Meter operators have benefited so much from the application of 2M and up technology to our receive converters that we cannot complain about the TXs.

Senecas sound good, have a VFO built in and run a a pair of 6146s. They also do low level AM. The HX-30 is a 10W SSB/CW rig of great versatility and complexity. I ran one with the companion 100W HA-20 amp for years, but the rig alone will do lots of good on CW with an option for both AM and SSB. The Ameco is a Seneca like deal without the VFO, but if you see the companion 621

VFO, grab it -- you can always sell it to me. It was one of the best; right up there with the Communicator IV VFO from Gonset that also did FM (I have a FM mod for the 621 also.) Then there is the HiBander.

CW with the Hi Bander is like 5M was at the last -- pretty good but surely not up to low band standards. The Globe is a bunch of 5763s driving a 6146 and a 12AX7 to a 6L6 in a Heising modulation scheme. There is LOTS of heat in there with the 5U4 rectifier and they key the whole chain too. Larry War4e once said his Hi-Bander put out "about 35W of unstable RF." My reply was "soundl like a Hi Bander." The note is, well, musical. I can make a Hi Bander sound good -- move the rectifier and modulator out of the box and tap it back in thru the accessory octal, change to cathode (or grid block) keying with shaping, remove the 5763 that does not work on 6M. But what do you have then? -- a lot of fun! The HiBander is a maze of knobs to tweak and adjust -- real seat of the pants VHFing.

A poor but present option is the legion of Novice type TXs that "also did 6M."

They all double in the final as do most of the modifications to commercial stuff like all the Heaths from AT-1 to DX-40, the AF-67 and such. Aside from getting the "never modify" folks riled, you seldom get efficeincy worth the trouble. These were solutions for when rigs were expensive.

Finally, if you find an old Tecraft transmitter and don't want to send it to me for the reference collection, I have a CW mod for it too. If you really want to get essoteric -- say put a Black Widow or a Babb TRA-6 on CW, e-mail me. I want to join in on the fun.

73 de ab5L, michael in dallas, student of Tecraft and International (ICM) ham products and mementoes of Six Meters' Golden Age: 1957-58

Michael Hopkins

Box 226841

Dallas, TX 75222 MNHopkins@AOL.com

From: W4UOC@aol.com
Message-ID: <90d621f7.35a680b6@aol.com>
Date: Fri, 10 Jul 1998 16:59:33 EDT
To: Old Tube Radios <boatanchors@theporch.com>
Mime-Version: 1.0
Subject: Who need 809 tube
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

I saw a post a week or so ago that someone needed an 809.

I have one new old stock....

It is free for shipping.

Tom Koch - W4UOC

Message-Id: <3.0.5.16.19980710141029.20e7115a@istar.ca>
Date: Fri, 10 Jul 1998 14:10:29 -0700
To: Old Tube Radios <boatanchors@theporch.com>
From: Ralph Parker <rparker@istar.ca>
Subject: Six Meter TX choices
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

>Ian wants a 6M TX, maybe with VF0. He is interested in 6M CW. What to buy?
>I would look for: Heath Seneca, Heath HX-30, Ameco TX-62, ...

How about a Ranger II ? Plug and play.
VE7XF

Message-Id: <3.0.5.16.19980710141024.2de7b458@istar.ca>
Date: Fri, 10 Jul 1998 14:10:24 -0700
To: Old Tube Radios <boatanchors@theporch.com>
From: Ralph Parker <rparker@istar.ca>
Subject: Ouch!!
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

>...a friend has a truly mint condition KWM-1 ... \$3,500. OBO CASH.

Man, am I out of touch, or what???
Shouldn't this be on the radio finder list?

VE7XF

From: MNHopkins@aol.com
Message-ID: <18771a56.35a69166@aol.com>
Date: Fri, 10 Jul 1998 18:10:45 EDT
To: Old Tube Radios <boatanchors@theporch.com>
Mime-Version: 1.0
Subject: Rangers, other bad ideas
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

VE7XF quite properly points out that I left the Johnson Ranger out of my list of 6M TXs. One of the two incarnations would go on 6M, but I never mention

that except when cataloging because the Ranger's fault, shared with the Valiant, the Pacemaker, the Eimacs and a few other running dogs, is especially troublesome at VHF -- they all have a VFO built in the middle of the rig between multiple firebottles.

Foolishness like that is an open, engraved invitation to drift, and when you are going from 8mc to 50 you do not need marketing-influenced engineering compromises. Of course the Ranger will "sit on the desk." So will the growth enhancing substance my wife puts on the flowers, and each sack weighs about the same.

73 de ab5L, michael in dallas, student of Tecraft and International (ICM) ham products and mementoes of Six Meters' Golden Age: 1957-58
Michael Hopkins
Box 226841
Dallas, TX 75222 MNHopkins@AOL.com

Date: Fri, 10 Jul 1998 15:33:59 -0700 (PDT)
From: "N. West" <ninaw@u.washington.edu>
To: Old Tube Radios <boatanchors@theporch.com>
cc: boatanchors@theporch.com
Subject: Re: CRT date codes
Message-ID: <Pine.A41.3.96a.980710151950.33012D-100000@dante15.u.washington.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Hank,
Thanks for your reply. Dean McIntyre seems to have a definitive reference that places this tube in 1952, which would be consistent, along with your input, of an original tube for this scope. Any idea what the typical application of a lab scope with a very long persistence CRT would be? It has a USAF property sticker on it.
Thanks
Fred Powell
c/o
ninaw@u.washington.edu

On Thu, 9 Jul 1998, Henry van Cleef wrote:

> ... The scope
> itself is only 2 Mhz bandpass, but high (5 mv/CM) sensitivity, and I
> don't recall that they were very common---the 10 Mhz. 511 and 514
> scopes were what Tek had for "volume" in the early days. P-7 phosphor
> and a boat anchor symbol suggest a tube originally built for the Navy
> as a radar display tube, although Tek used RCA CRT's until some years
> later when they began making their own, and this could have been

> furnished to Tek OEM if the scope was bought with P7 phosphor.

From: Henry van Cleef <vancleef@netcom.com>
Message-Id: <199807102301.QAA00652@netcom5.netcom.com>
Subject: Re: Tek Plugin Question
To: Old Tube Radios <boatanchors@theporch.com>
Date: Fri, 10 Jul 1998 17:01:10 -0600 (MDT)
Cc: boatanchors@theporch.com
MIME-Version: 1.0
Content-Type: text/plain; charset=US-ASCII
Content-Transfer-Encoding: 7bit

As John Heck discourses

>
> Folks,
> I just picked up a manual for my CA plugin. In reading through it I see that Tek
> wrote "It can be used...in conjunction with other oscilloscopes and devices
through
> use of the Tektronix Types 127, 132, or 133 plug-in power supplies." I would
like
> to know if I can take that to mean that if I can provide suitable power for the
CA,
> that I can use it with any other o'scope I happen to have, just by rigging up a
> cable between the plugins output and the other scopes input? Are the Tek power
> supplies reasonably plentiful? or would it be feasible to homebrew a power
supply?
> Has anybody used a plugin in this manner? The Tek manual does not elaborate on
how
> to use the CA in any manner but by plugging it in a Tek scope. Giving it some
thought,
> I suppose that the CA is just a 2 channel linear amp with flat response up to
about

The 127, 132, and 133 take care of a bunch of things peculiar to the
letter series plugins. In addition to normal B voltages sent to the
plugin, there are two things you need to consider:

1. All letter series plugins require 75 VDC @ 150 ma. for a series
heater string. In scopes, this is derived from the +100 supply
through heaters in the B sweep (535, 545) or a series resistor (all
single time base units).

2. The output to the vertical amplifier is 100 mv/cm of deflection,
elevated 67 volts DC.

The Tek supplies take care of these two things. The voltage gain in a
plugin is quite low, if you are thinking "audio preamp." Also, look

at the output impedance of the plugin. You can block the 67 volts with caps for audio use, but want to consider the gain and impedances involved.

With a CA, the Bandwidth is DC to something over 24 Mhz. Even the "golden ears" haven't yet claimed 20 Mhz+ response to be critical for audio.

So far as setting them up to use in front of other scopes, I'd much rather look for a Tek 530/540 series to use the plugins with.

--

=====
Hank van Cleef
=====

From: Jderm740@aol.com
Message-ID: <99f9fc08.35a6a286@aol.com>
Date: Fri, 10 Jul 1998 19:23:49 EDT
To: Old Tube Radios <boatanchors@theporch.com>
Cc: JOHN_SEHRING.parti@ecunet.org
Mime-Version: 1.0
Subject: Re: BOATANCHORS digest 2120
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

Hi John

I saw your request for info about the Outboard Freq Counters and the only one I have experience with is the Ramsey CT-50. These were convertible to digital read-outs for receivers with a kit they marketed.

They don't market either anymore, but when I bought my CT-50 they did send me a copy of the conversion manual and PL. I have been collecting the parts to make the conversion. The nice thing about their method is that the counter can be used either way. As a regular counter or the rec. read-out.

This is not cheap. Counter \$159.00 plus conversion parts. I think that is the right price but I don't really remember and I didn't save the catalog or the cancelled check.

Jack Jderm740@aol.com

Message-ID: <010801bdac5a\$28d936c0\$d93c4018@wnovinger.shl.com>
From: "Walt Novinger" <wnovinger@shaw.wave.ca>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Waterton hamfest info needed
Date: Fri, 10 Jul 1998 17:26:25 -0600
MIME-Version: 1.0


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Content-Type: text/plain;
    charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
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Does anyone have contact info (email, URL, phone) for the hamfest being held in Waterton state Park (MT) next weekend? I'd like to arrange for a table and don't have any way to do so.

Thanks!
Walt

Walt Novinger Real Radios Keep You Warm At Night!
Collector of hollowstate communications receivers and test equipment
wnovinger@shaw.wave.ca

Message-ID: <35A6AB3D.336073C1@ix.netcom.com>
Date: Fri, 10 Jul 1998 20:01:02 -0400
From: K3DPJ <morry@ix.netcom.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: SR150
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

JUST FINISHED RESTORING A SR-150. OUTPUT POWER ABOUT 80 WATTS CW. SEEMS
LOW TO ME OR IS THIS ABOUT RIGHT????
BEST 73 MORRY K3DPJ

Message-ID: <35A6B379.3C04@mc.net>
Date: Fri, 10 Jul 1998 19:36:10 -0500
From: Kevin Thomas <kg9il@mc.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: peotone
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hello all,

I will have the following BA's at the Peotone, IL fest on Sunday.....

Heath SB-110 with accy's
Heath SB-200
Halli SX-101
Hammurland spkr
HQ-170

National NC-300 w/spkr

misc Heath stuff

please stop by and introduce yourselves....look for white dodge dakota
with ham plates.....

THANKS Kevin KG9IL

Date: Fri, 10 Jul 1998 21:33:53 -0600 (MDT)
Message-Id: <199807110333.VAA18705@bernie.compusmart.ab.ca>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
To: Old Tube Radios <boatanchors@theporch.com>
From: mraine@compusmart.ab.ca (Marty Raine)
Subject: Waterton, MT, Hamfest
Cc: boatanchors@theporch.com

Walt...contact Gerry Leach, VE6BVZ, 55 Templegreen Place NE, Calgary, AB,
T1Y 4Z2 phone 403-285-5547 fax 403-285-6154
or on email at ve6bvz@rac.ca

Have fun....great event!!

Marty
VE6TS
Edmonton, AB

Date: Fri, 10 Jul 1998 22:39:39 -0500
From: "wayne.harrah" <wayne.harrah@mci2000.com>
Subject: Re: BC-779 (SP-200) Knobs
To: Old Tube Radios <boatanchors@theporch.com>
Cc: boatanchors <boatanchors@theporch.com>
Message-id: <009201bdac7d\$8b390020\$422e37a6@skjseefa>
MIME-version: 1.0
Content-type: text/plain; charset="iso-8859-1"
Content-transfer-encoding: 7bit

>Can anyone with a Hammarlund Instruction Book or a Mil TM please look up
>the
>parts list to identify the mfr part nos for the 12 fluted knobs. There are
>10 small size
>with pointers attached and two regular style but quite a bit larger.

Hiya.

the knob listing from my newly acquired TM 11-866 for the BC-779(*)
BC-794(*) series of receivers shows the knob part numbers as follows:

knob, round, 1 1/8 dia. knurled fingertip grip, Kurz-Kasch No. S-308-64B.

Hammarlund p/n SA-86

knob, round, 1 5/8 dia. knurled fingertip, grip (no KK No.), Hammarlund p/n
3856.

Another BA listmember sold me (affordably cheap, I think) a BC-779(A)
without PS, rack mounted. Looks pretty good, although looks like it is
covered with sort of a yellow smoke-stain kind of film. But, I may get to
learn about how to build HV power supplies for receivers unless someone has
a RA-74(*), RA-84(*) or RA-94(*) power supply for this receiver they can
sell me. The only differences in these (per the manual) is the lower
numbered ones allowed more options for input voltage. The '94 is a
115V-230V model, which would be fine for me. Anybody got one?

Like the rest of you, I ain't got lots of money, but this 'old radio' thing
is already becoming quite an addiction. Uh-oh.

By the way, the manual I got was at the following site, in case you haven't
been to it before. He has LOTS of MIL stuff, and the shipment I got for \$20
included a brand new manual, dated 1948, with 4 sets of update sheets.
(BTW, I have absolutely NO affiliation, but, am a VERY satisfied customer.)

His URL is <http://www.sonic.net/~bandl/> (That's B and L).

Buzz, ke0ms

```

                |
                /O\
\_____[(.)|]_____/
  o  ++/  O  \++  o   Mailto:Wayne.Harrah@mci2000.com
                        Beginning appreciator of tubes and metal,
                        and those People, radios and machines
                        which served this country so well.
```

Date: Fri, 10 Jul 1998 23:10:40 -0500 (CDT)
From: Bill Hawkins <bill@iaxs.net>
Message-Id: <199807110410.XAA20707@citrus.iaxs.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: WTDW big HP scopes

The question is, what to do with two big HP scopes. A guy at work who
knows I have tube era stuff, told me he had two HP scopes. He wanted
to make room in his basement and calm his wife. Told him I sure didn't
have any room. Then he told me he'd just remove the knobs and maybe
a switch or two, and then can the carcasses. Now, I'm with W.C. Fields
about children, and I'm allergic to animals, but I can't stand cruelty

to good equipment. So now I have 2 HP scopes in the garage that smell like they'd been kept in a barn, tho no animals ever lived in them. One is a military OS122A/USM-141, weight 90 pounds according to the cover. The other looks much like it, but is commercial HP. Has plugins marked 1755A and 1781B, but no nameplate on the frame except a serial number. They have a mixture of tubes and 3 legged fuses. Both are rack mount.

Folks, I have too many Tektronix scopes now. I really don't need these beauties. Anybody want one of these orphans enough to pay the shipping from Minneapolis? Anybody local want to trade for almost anything?

Regards,
Bill Hawkins

Message-ID: <35A6E949.E2F67873@gomontana.com>
Date: Fri, 10 Jul 1998 22:25:45 -0600
From: Kevin Gallagher <wire2liv@gomontana.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: HN connectors needed
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Gents, I am in dire need of a couple of female HN to HN barrel connectors. I could also use in lieu of these some standard female HN connectors. I also have available (if anyone needs some), #7895 and #7586 nuvistors. Thanks, Kevin

From: "David Newkirk" <dpnewkirk@home.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: A direct (current) approach to audio
Date: Sat, 11 Jul 1998 06:53:18 -0400
Message-ID: <000001bdacba\$1d575880\$33940318@cc632587-a.vron1.nj.home.com>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

In private email, Michael Hopkins, AB5L, wrote [also giving me permission to quote him, and suggesting the above title]:

> You are just the third person I have
> encountered who advocated DC on the oscillator heater.

and

> Haiji Suzuki, in a classic regenerative RX he used to QSL 200 countries,
> bridged and filtered the filament, but Lindsay, Regenerations new
> guru with
> his own book and the C.F. Rockey tome too, says "you can cut out hum with
> proper bypassing." I was not sure one would go to DC heaters
> just for hum, BTW.
>
> Thus, is going to DC just a measure of "belts and braces" as
> they say in
> the G-QRP club, or would one expect significant results from that measure
> alone?

The results *are* significant: You can hardly find a boatanchor that isn't hard to listen to with modern, hi-fi headphones because of hum. (Unless you're seriously nostalgic, modern headphones are generally more worth using than older, "communications" jobs because of their significantly lower IMD.) But put dc on the heaters, and it's a new sonic world -- on top of the stabler tunable oscillator operation that results with unvarying heating. Bypassing *cannot* get rid of heater-ac induced hum; it results from the presence of a a strong AF signal (60 Hz) very near AF amplifiers designed to amplify signals at or near 60 Hz. Importantly for CW listeners, powering a set's local oscillator heater from dc can also cure the heater-related FM that, in some designs, makes the note of heterodyne-detected signals sound less pure at higher frequencies.

Points: For best results, it's also a good idea to use an outboard B+ supply, preferably regulated, because the power transformer and AF transformer(s) are so close together in many sets -- check out how cozy the AF stages and power supplies are in the standard Hallicrafters and inboard-supply National designs, for instance! -- that the power transformer induces hum directly into the AF output transformer and any interstage AF transformers present. Test: Connect your headphones where the speaker would connect (if they aren't already driven by the AF output transformer, as they are in many, mainly later, designs), pull out the AF power tube, and power up the set. You will likely hear some hum; if so, the power and output transformers are "talking." :-D

The availability of 12.6-V versions of many tubes can ease "dc-ification" in many designs because "12-V" regulated supplies are everywhere now. Related caution: Connecting 6.3 V tubes with identical heater current in series for 12-V operation is *very tricky* if the seriesed tubes aren't specified for "controlled heater warm-up time" (almost invariably 11 seconds plus-and-minus a percentage). Like all resistors, the resistance of a tube heater increases greatly as it heats. The faster-heating tube in a seriesed string of two can end up dissipating *significantly, dangerously* high heater power if both tubes don't warm up at about the same rate. For example, I once connected two 6AG7s in series across 12.6 V ac. After less than half a minute, one was too hot to touch and the other was suspiciously

cool -- and I hadn't yet applied B+! Measurement revealed that the hotter tube had *8 V* across its heater. *That's* what "controlled heater warm-up time" avoids.

Be sure to disconnect the heaters from the heater winding on the power transformer when powering an "ac" radio's heaters from dc. Otherwise, damage to the heater winding and/or dc heater supply may result.

For a real treat, in a boatanchor with a single-ended AF power amplifier, rewire the output stage as a triode-connected cathode follower, connecting plate and screen directly to B+ (with the output transformer primary shorted or otherwise out of the circuit), unbypassing the cathode resistor and taking headphone output from the cathode via a several-hundred-uF to 1000-uF electrolytic of sufficient voltage rating. (Put a 47-k pull-down resistor across the headphone jack so the cap can charge *before* you plug in your phones!) With a triode-connected 6V6, for instance, the standard Class-A cathode resistor results in an output impedance of about 140 ohms -- perfect for modern hi-fi headphones, the impedance of each driver in which is on the order of hundreds of ohms, paralleled for monaural operation. Note: An existing power stage converted to a cathode follower in this simplistic way will exhibit less gain after conversion, but should be able to drive headphones with more than enough volume if its gain wasn't marginal before conversion.

When you power a tube radio with regulated dc on its plates, screens *and* heaters, and get the iron out from between its AF power stage and your hi-fi headphones, you'll be *amazed* at what you've been missing.

Fun Easter egg for "ARC-5" receiver users: If you're already running your radio's heaters off a 28-V regulated dc supply, temporarily disconnect that 250-V B+ connection and try powering the radio's plates and screens from 28-V dc. If it's well-aligned and its tubes are sound, *you'll still hear signals* -- and the radio's easily-saturatable AF power stage will provide a bit of limiting on strong signals.

73,

Dave Newkirk, W9VES
dpnewkirk@home.com

Message-Id: <3.0.1.32.19980711140823.007c4e80@pop.ctv.es>
Date: Sat, 11 Jul 1998 14:08:23 +0200
To: Old Tube Radios <boatanchors@theporch.com>
From: "JOSE V. GAVILA (EB5AGV/EC5AAU)" <eb5agv@ctv.es>
Subject: KWM-2A restoration (II)
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Hello gang,

First than anything else, thanks for your help, specially to Walt W2OKF and Ian VK3KCM for the information they sent by e-mail and FAX. Now I have Chapters 3 and 4 of the KWM-2A manual and also the schematic.

Good news is that the KWM-2A is starting to work. I get good receiving signals at 80, 40, 20 and 15 meters. I've removed one mod made to T1 (an added 390 Ohm resistor in parallel with the output and a capacitor in parallel with the input). But now I'm having trouble with the alignment procedure. When I put the rig in transmit and tune it, in LOCK mode the GRID current starts falling fastly (from a very low value), until it reaches 0, independent of MIC GAIN position. In TUNE mode, the GRID current also decreases, but doesn't reach 0. As in the alignment procedure I should use the GRID current in LOCK mode to tweak the slugs and trimmers, I can't do it properly. I've tried it in TUNE mode, but of course something is not working fine. It seems as an ALC voltage decreases the power output gradually. As a sample, I can get about 60W in 3.7MHz at start, in LOCK mode (once properly tuned in TUNE mode). But immediately, it starts to going down, to reach about 20W. If I change from LOCK to TUNE mode with the meter in GRID current, it starts to raise its reading gradually, so I need to lower the MIC GAIN to maintain it at low levels. Any idea of where to look at?.

Thanks for your help.

Best regards.

JOSE

73 EB5AGV / EC5AAU
JOSE V. GAVILA
Ausias March 46, 15
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SPAIN

*** VISIT MY VINTAGE RADIO SITE - updated 24-June-1998 ***
<http://www.geocities.com/SiliconValley/6992/>
e-mail: eb5agv@ctv.es & eb5agv@amsat.org

Message-Id: <3.0.1.32.19980711070234.0082b210@marlin.nosc.mil>
Date: Sat, 11 Jul 1998 07:02:34 -0700
To: Old Tube Radios <boatanchors@theporch.com>
From: Edward Zeranski <ejz@nosc.mil>
Subject: TED/RED xtals
Mime-Version: 1.0

Content-Type: text/plain; charset="us-ascii"

BA Folk,

Just got back from a three week sojourn to the 'friendly' Eastern Adriatic. USPS did a good job of bringing home the BA artifacts I found at GrandJunquention in VA with all parts surviving. Awhile back somebody was looking for xtals for the TED/RED(URR-35) series tx/rx. I picked up a CY-1180/U xtal set with 96 of 100 CR-24/U xtals. Set was \$15 and if interested is yours for same and shipping, feels abt 5 lbs. Missing freqs are 277, 277.8, 299.4, and 301MC case in VG shape..as good as any I saw in the Nav. Set was built by Keystone Electronics,NOBSR-64768.

Ed Zeranski This is a private opinion or statement.
home email: ezeran@cris.com

Message-ID: <002101bdace2\$d0fa68a0\$6bddd8cc@km3g.cts.com>

From: "Lane C. Zeitler" <km3g@cts.com>

To: Old Tube Radios <boatanchors@theporch.com>

Subject: Need 1100 or 2150 volt plate xmfr

Date: Sat, 11 Jul 1998 08:44:35 -0700

MIME-Version: 1.0

Content-Type: text/plain;
charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

Looking for 1100 volt 1 amp or > or I can use a 2150 volt 600mA or greater xmfr. MUST be 220, 230, or 240 volt primary.

State condx, model, price.

Lane
KM3G
San Diego

Have a great day in the Lord

End of BOATANCHORS Digest 2122
